

(d) REMARKS

The claims are 1, 3-9, 11-13 and 15-17 with claim 1 the sole independent claim. The subject matter of claims 10 and 14 has been added to claim 1.

The Examiner has objected to the addition of paragraphs [0055C] and [0055D] in the substitute specification on the ground that the definitions of rate of liberations “a” and “b” recited are allegedly new matter. Claims 1 and 3-17 were rejected under 35 USC §112, first and second paragraphs essentially because (1) the rates of liberation are expressed in percentages and, therefore, are allegedly unclear; and (2) the original specification fails to describe the rates of liberation “a” and “b” recited in added paragraphs [0055C] and [0055D].

The Examiner argues the liberation rates must be ratios of emission of a respective element later than 2.6 msec after the emission of a carbon atom to the sum of the emission of the element. The sum is said to be emission of the element within and after 2.6 msec after the emission of a carbon atom or the like. The grounds of rejection are respectfully traversed.

Initially, without conceding the propriety of the objections, and solely to expedite prosecution, paragraphs [0055C] and [0055D] have been cancelled. The previously added paragraphs [0055C] and [0055D] merely recite explicitly that which was inherently present, and therefore, need not be disclosed in the specification. It will be shown that one of ordinary skill in the art can readily understand from the disclosure in the original specification on page 25, line 5 to page 27, line 2, the nature and scope of (i) the

rate of liberation of a conductive fine particle and (ii) the rate of liberation of an inorganic fine particle.

Firstly, “a rate of liberation of the conductive fine particle from the toner particle” as disclosed in the present specification means the percentage of the conductive fine particle liberated from the toner particle. This is the ratio of fine particles liberated to the total fine particles present X 100%. In other words, the ratio of the amount (number) of the conductive fine particles ( $N_1$ ) liberated from the toner particle to the total amount (total number) ( $N_2$ ) of the conductive fine particles present in the toner particle indicates “a rate of liberation of the conductive fine particle from the toner particle”; i.e.,  $N_1/N_2$ . Similarly, “a rate of liberation of the inorganic fine particle from the toner particle” means the ratio of the inorganic fine particles liberated from the toner particle as in the case of the conductive fine particles.

As noted by the Examiner, the total amount (total number) of the conductive fine particles in the toner particles is obtained by adding the amount (number) of the conductive fine particles attached to the toner particles and the amount (number) of the conductive fine particles liberated from the toner particles. Further, the amount (number) of the conductive fine particles can be expressed as the number of times of emission of the atom constituting the conductive fine particles by using a particle analyzer.

In present claim 1, it is recited that the conductive fine particle includes at least zinc oxide or tin oxide, and the inorganic fine particle includes at least silica, titanium oxide, or alumina. Therefore, according to the procedure disclosed in paragraph [0055] on page 17 in the substitute specification, the amount (number) of the conductive fine particles

in the toner particles can be obtained by measuring the number of emissions of Zn atoms and Sn atoms, and the amount (number) of the inorganic fine particles in the toner particles can be obtained by measuring the number of emissions of Si atoms, Ti atoms and Al atoms.

Paragraph [0055], penultimate line to the end, clearly discloses that the emission of the atom constituting the conductive fine particle measured within 2.6 msec after an emission of a carbon atom is related to the conductive fine particle attached to the toner particle. The emission of the atom constituting the conductive fine particle measured after 2.6 msec from an emission of a carbon atom is related to the conductive fine particle liberated from the toner particle.

Accordingly, as understood by the Examiner, the rate of liberation of the conductive fine particle can be obtained from the following:

Rate of liberation of the conductive fine particle from the toner particle (%) =

$$100 \times \left[ \frac{\text{(the number of emissions of the atom constituting the conductive fine particle measured after 2.6 msec from an emission of a carbon atom)}}{\text{(the number of emissions of the atom constituting the conductive fine particle measured within 2.6 msec from an emission of a carbon atom + the number of emissions of the atom constituting the conductive fine particle measured after 2.6 msec from an emission of a carbon atom)}} \right]$$

Similarly, as noted by the Examiner, the rate of liberation of the inorganic fine particle can be also obtained as follows:

Rate of liberation of the inorganic fine particle from the toner particle (%) =

$$100 \times \left[ \frac{\text{(the number of emissions of the atom constituting the inorganic fine particle measured after 2.6 msec from an emission of a carbon atom)}}{\text{(the number of emissions of the atoms constituting the inorganic fine particle measured within 2.6 msec from an emission of a carbon atom + the number of emissions of the atom constituting the inorganic fine particle measured after 2.6 msec from an emission of a carbon atom)}} \right]$$

The value obtained by measuring the number of emissions is inserted into the expression of rate of liberation mentioned above. As a result of this calculation, the rate of liberation of the conductive fine particle from the toner particle expressed as a percentage (%) and the rate of liberation of the inorganic fine particle from the toner particle expressed as a (%) are obtained. These are merely the ratios expressed as percentages as noted above; i.e.,

$$100\% \times [4/10] = 40\% \text{ for "a"}$$

As noted above, the rate of liberation of the conductive fine particle and the rate of liberation of the inorganic fine particle can be obtained by one of ordinary skill in the art from the description of the original specification as filed.

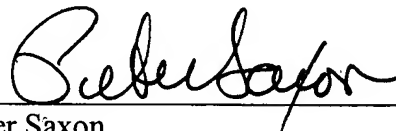
Furthermore, the expression of rate of liberation as a percentage is well-known among skilled persons in the art at the time when this application was filed. For example, this is clear from the description of paragraphs [0108] to [0111] in the Magome reference (US2001/0028988A1) which was cited in the previous Official Action.

Therefore, the objection to the specification has been resolved by cancellation of [0055C] and [0055D]. The objection under 35 U.S.C. §112, first paragraph, has been met by demonstrating that the percentages claimed are equivalent to the ratios disclosed and was inherently present. The Rule 112, second paragraph, objection has been met by showing that the percentages are another equivalent way of expressing the disclosed ratios and by showing that this is art-recognized nomenclature as shown in Magome '988.

The Amendment should be entered since it places the case in allowable form and/or it resolves Rule 112 objections and reduces the issues on appeal.

Applicants' undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read "Peter Saxon", written over a horizontal line.

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